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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,023	11/13/2001	Raymond F. Cracauer	FORS-06679	3272

7590 07/14/2004

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EXAMINER	
HANDY, DWAYNE K	

ART UNIT	PAPER NUMBER
1743	

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/054,023	CRACAUER ET AL.	
	Examiner	Art Unit	
	Dwayne K Handy	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5,6,20,22 and 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5,6,20,22 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/21/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Levin et al. (6,432,365 – "Levin"). Levin teaches a system for dispensing solutions to a multiwell plate for compound synthesis inside a centrifuge chamber. The system is best shown in Figures 1, 2 and 4 and described in column 12. The centrifuge (110) comprises chamber (112) with rotor (114) for holding the collection container assembly (404/406). A software controlled access door (116) is provided an opening (436) for accessing the chamber (112). Ventilation is provided via a venting cover (208) with a plurality of ports for vent lines.

Inventorship

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levin et al. (6,432,365 – "Levin"). Levin, as disclosed above in paragraph 2, teaches every element of claims 5 and 6 except for a plurality of synthesizers (and 100 or more).

It would have been obvious to one of ordinary skill in the art, however, to provide a plurality of reaction systems in order to increase the production of product. Therefore, the claims are rejected.

6. Claims 20, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGowan (6,238,627) in view of Heyneker et al. (6,264,891). This rejection was previously applied to claims 21 and 22, but is now applicable to the amended claims listed above. Please see Response to Arguments below for a further discussion of this rejection.

Response to Arguments

7. In light of applicant's amending of claim 1 and claim 20, the 102 rejections involving the references McGowan and DeWitt have been lifted. The Examiner has provided a new rejection involving the reference – "Levin" – for the amended claim 1.

8. Applicant's arguments filed 4/21/2004 involving the rejection of claims 20, 22, and new claim 24 have been fully considered but they are not persuasive. Applicant has offered several arguments in traversing the Examiner's rejection from the previous Office Action. The first is that the references do not teach oligonucleotide synthesizers. The Examiner respectfully disagrees. Applicant has broadly claimed a synthesizer comprised of a chamber and lid forming a ventilated workspace in claim 1. Claim 20 recites a system comprised of a ventilation tube, a lid enclosure with various features,

and a vacuum source. The Examiner believes he has provided references containing those features. The Examiner also reminds applicant that an apparatus is defined by ***what it is and not what it does***. The Examiner considers the recitation of an "oligonucleotide synthesizer" to be a recitation of intended use. Any reactor or chamber could be used to synthesize nucleotides.

As for the traversing of the rejection involving the combination of the Heyneker with McGowan, applicant has asserted that the addition of Heyneker to McGowan actually teaches away from the McGowan reference because McGowan already provides a fluid removal system. The Examiner respectfully disagrees. McGowan provides a ***gas removal element*** that differs from the added teachings of Heyneker. In McGowan's system, reaction vials (12) are loaded into a base element (16), the device is assembled, and then cooling gas is provided through a hose (32) connected to an inlet (30) in the top cover and removed through openings (34). See column 4 of McGowan. McGowan does not provide any element for removing the fluids from the reaction containers. This is where the addition of the teachings of Heyneker becomes relevant. As stated in the previous action, Heyneker also teaches an enclosed reaction system. The system of Heyneker includes a vacuum system that is used to drain fluids from the bottom of the reaction vessels (See Drain System, columns 8-9). It is **this** feature – the vacuum system for draining the reaction vessels from the bottom - which the Examiner considers to be obvious to one of ordinary skill in the art to add to the reaction block of McGowan. This is clearly not the same feature as McGowan's gas supply and removal system. The Examiner believes this feature may be added to the

reaction block of McGowan for removal of materials from the reaction vessels and still allow for the use of cooling gas in the upper section of the block. As for the limitation of a "cartridge" as required in the new claim 24, the Examiner believes the base element (16) from McGowan meets this limitation since it holds a plurality of vessels.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K Handy whose telephone number is (571)-272-1259. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKH
July 9, 2004

Jill Warden
Supervisory Patent Examiner
Technology Center 1700